

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 – 15 and 17 – 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callegari (US 5,108,125) in view of Bejean (US 5,333,890).

As for claim 8, Callegari discloses a cross-country ski system (Fig. 1) comprising: a cross-country ski (34) comprising an upper surface (35) including a central zone constructed and arranged to receive a device (10) structured and arranged to be connected to a part of the boot (17) in an area corresponding to the metatarsophalangeal bending zone of a wearer's foot for binding a boot to the ski (Fig. 1); the central zone of the ski comprising a binding zone having a location for receiving the binding device; the upper surface of the ski comprising an upper support surface (35) arranged on at least one of two lateral sides of the location to receive the binding device, the upper support surface being exposed laterally of the binding zone for coming in direct contact with the boot when a skier using the cross-country ski system exerts a pressure force with the boot toward the ski (see Fig. 4). Callegari does not disclose a recess in the upper surface of the ski.

Bejean discloses a cross-country ski system in which an upper element (5) is received in an upwardly facing open recess (Fig. 5) in the upper surface of a lower

element (4). The recess extends downwardly at least partially to a depth below said upper surface (see 4b). Bejean teaches that joining an upper element and a lower element via a longitudinal recess facilitates manufacturing and the selection of desired performance characteristics (see column 1, lines 28 – 33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the binding device disclosed by Callegari such that it was partially sunk into a recess in the upper surface of the ski, as shown by Bejean, to simplify assembly of the ski and binding and to achieve desired mechanical response characteristics.

As for claims 9 and 11, Bejean discloses lateral shoulders (4b) formed by said recess such that a boot can be supported directly on the shoulders (see Figs. 7 and 10). The shoulder support surface is above the upper surface of the recess. Furthermore, Callegari discloses a boot that is directly supported by laterally exposed surfaces of the ski (Fig. 4).

As for claims 10 and 12, Callegari discloses two lateral upper surfaces arranged on respective sides of the binding and in the metatarsophalangeal bending zone of a wearer's foot (Fig. 4).

As for claim 13, Callegari and Bejean meet all the limitations as described above with respect to claim 8. Callegari further discloses a binding device including a mechanism (29) for engagement with the boot.

As for claim 14, Callegari shows a cross-country ski system wherein a binding device has a lesser width than the width of the ski (see Fig. 4).

As for claims 15, 18, and 19, Callegari discloses a binding device comprising an upwardly projecting rib (36) adapted to be positioned within a downwardly facing longitudinal recess (19) in a sole of the boot. There is no base plate mounted between the boot and the upper support surface of the ski in the system shown by Callegari (see Fig. 4) that would interfere with direct contact between the boot and the lateral upper support surfaces.

As for claim 17, Callegari further discloses a front jaw (24), a front bar (20), an elastic return mechanism (31), and a rear bar (21).

As for claim 20, Callegari discloses a support surface in the metatarsophalangeal bending zone of a wearer's foot (Figs. 3 and 4).

As for claim 21, Callegari and Bejean meet all the limitations as described above with respect to claim 13. Callegari further discloses a ski (34) having a upper surface width greater than a width of the binding device (Fig. 4). Callegari further discloses a rib (36) which is an integral part of the binding device.

As for claims 22 and 24, as discussed above, Callegari discloses an assembly in which the boot is supported directly by the upper surface of the ski, without interference from a base plate (see Fig. 4). Callegari further discloses a boot comprising front and rear bars (20 and 21).

As for claim 23, Callegari further discloses a front jaw (24), a front bar (20), an elastic return mechanism (31), and a rear bar (21).

As for claims 25 and 26, Callegari discloses a binding zone having a width less than that of the ski for the entire length of the binding zone, thus exposing lateral support surfaces (see Fig. 4).

As for claim 27, 30, and 35, Callegari discloses an upper support surface (35) extending to an outer transverse edge of the ski (Fig. 4).

As for claim 28, 31, and 36, Callegari discloses a location for receiving the binding device in the area of the metatarsophalangeal bending zone (see Figs. 3 and 4). If one were to recess said binding device as suggested by Bejean, the recess would necessarily be located in the metatarsophalangeal bending zone.

As for claims 29, 32 – 34, and 37 – 39, Callegari shows flat ski, which lacks a boot-sole engaging rib. The boot-sole engaging rib is an integral part of the binding device.

It is noted that the teachings of Bejean are relied on only to show a method of assembling an upper ski element and a lower ski element by nesting said upper ski element in a recess formed in said lower ski element. If one were to apply this assembly method to the binding device (i.e. upper ski part) and ski (i.e. lower ski element), then one would arrive at applicant's invention. Furthermore, one of ordinary skill in the art would have recognized the desirability of forming the recess with only the size and length necessary to accommodate the binding device.

As for claim 40, Callegari discloses a cross-country ski system (Fig. 1) comprising: a cross-country ski (34) comprising an upper surface (35) including a longitudinal central zone constructed and arranged to receive a binding device (10) to

be connected to a part of the boot (17) in an area corresponding to the metatarsophalangeal bending zone of a wearer's foot for binding a boot to the ski (Fig. 1); the longitudinal central zone of the ski comprising a binding zone for receiving the binding device, said binding zone having a width less than the width of the ski (Fig. 4); the longitudinal central zone of the ski further comprising an upwardly facing boot support surface (35) extending laterally of the binding zone. Callegari does not disclose an interruption in the upper surface of the ski.

Bejean discloses a cross-country ski system in which an upper element (5) is received in a recessed interruption (Fig. 5) in the upper surface of a lower element (4). The recessed interruption extends at least partially to a depth below said upper surface (see 4b). Bejean teaches that joining an upper element and a lower element via a longitudinal recess facilitates manufacturing and the selection of desired performance characteristics (see column 1, lines 28 – 33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the binding device disclosed by Callegari such that it was partially sunk into a recess in the upper surface of the ski, as shown by Bejean, to simplify assembly of the ski and binding and to achieve desired mechanical response characteristics.

As for claims 41 – 43, Callegari discloses a binding device comprising a rib (36). There is no base plate mounted between the boot and the upper support surface of the ski in the system shown by Callegari (see Fig. 4) that would interfere with direct contact between the boot and the lateral upper support surfaces.

As for claims 44 - 47, the recess taught by Bejean is structured and arranged to receive a width of the upper element. (See column 1, lines 51 - 54 in which Bejean describes the upper element as "nested" in the lower element).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Callegari (US 5,108,125) in view of Bejean (US 5,333,890) as applied to claim 8 above, and further in view of Kenney (US 6,257,620).

Callegari and Bejean meet all the limitations of the claimed invention, but do not disclose an upper surface that is wider than a gliding surface. Kenney teaches a ski having an upper surface (21) that is wider than a gliding surface (22) – see Fig. 2, lower left embodiment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the ski taught by Callegari to have a narrower gliding surface to minimize surface contact, thus reducing drag.

Response to Arguments

Applicant's arguments filed June 27, 2011 have been fully considered but they are not persuasive.

Applicant argues that neither Callegari nor Bejean teach a binding received in a recess which extends below and upper surface of a ski. However, it is maintained that one of ordinary skill in the art at the time the invention was made would have been motivated to apply the teachings of Bejean (i.e. nesting an element in a recess that extends below the upper surface of a ski) to the binding and ski assembly taught by Callegari. One of ordinary skill in the art would have recognized that the benefits of said assembly technique (i.e. faster manufacturing, assurance of proper placement with

respect to the ski, resistance to lateral movement with respect to the ski, effect on the mechanical response characteristics of the ski) would be applicable to the assembly of a binding element to a ski. While it is acknowledged that Bejean does not envision receiving a binding in the recess, it is maintained that one would look to the teachings of Bejean when deciding how to attach an element to the upper surface of a ski.

One need only add a recess in the upper surface of the ski in the assembly taught by Callegari to arrive at applicant's invention. Bejean teaches such a recess, and explains that said recess enables an element to be quickly and properly affixed to the ski.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katy M. Ebner whose telephone number is (571)272-

5830. The examiner can normally be reached on Monday - Thursday, 7:30am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. Allen Shriver can be reached on 571-272-6698. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. M. E./
Examiner, Art Unit 3618

/J. ALLEN SHRIVER II/
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